

Ozone Depleting Substances

DOE has established two goals to eliminate usage of class 1 refrigerants (e.g., CFC-11, CFC-12) at DOE sites. The first goal requires DOE sites to retrofit or replace by 2005 all chillers with greater than 150 tons of cooling capacity and manufactured before 1984 that use class 1 refrigerants. The second goal requires DOE sites to eliminate the use of the remaining equipment that use class 1 refrigerants by 2010. LANL is making progress toward achieving these goals, and the results are summarized below:

CFC-11: At the beginning of CY2002, LANL had eighteen CFC-11 units with a total charge of 18,650 lbs. By the end of CY2002, seven of these units had been retrofitted to HCFC-123. Of these seven, three were required to be retrofitted or replaced under DOE's 2005 phase-out goals. As a result of these changes, LANL has eleven CFC-11 units remaining with a total charge of 11,420 lbs. Of these eleven, four must be retrofitted or replaced by 2005. The owning organization has identified a funding source to complete this replacement project, including a fifth unit, by 2005. The remaining six units do not fall under the DOE 2005 phase-out goal.

CFC-12: At the beginning of CY2002, LANL had ninety-two CFC-12 units with a total charge of 6,469 lbs. These numbers exclude small appliances such as window air conditioners, refrigerators, water coolers and dehumidifiers. LANL tracks the disposal of these units through Salvage, but does not maintain an inventory. LANL's refrigerant usage numbers, however, include refrigerant added to these systems. None of the CFC-12 units at LANL fall under DOE's 2005 phase-out goals. However, LANL is making progress to phase out these units. As a result, at the end of CY2002, LANL had only forty-nine CFC-12 units remaining with a total charge of 4,369 lbs

CFC-13/R-500/R-502/R-503: At the beginning of CY2002, LANL had twenty-four of these 'other' class 1 units with a total charge of 722 lbs. At the end of CY2002, LANL had nineteen of these units with a total charge of 527 lbs. None of these units fall under DOE's 2005 phase-out goals.

Salvage: Over the last two years, LANL has salvaged a number of class 1 small appliances. LANL no longer purchases small appliances containing class 1 refrigerants and has adopted a policy to replace rather than repair these units. In CY2001, LANL recovered 58 lbs of CFC-12 from small appliances. In CY2002, LANL recovered 29 lbs of CFC-12, 1 lb of R-500, and 4 lbs of R-502 from small appliances. As the inventory of class 1 small appliances decreases, we expect these numbers to also drop.